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EXAMINER

POLLACK, MELVIN H

ART UNIT

PAPER NUMBER

2152

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n No.

09/488,945

Applicant(s)

AMES ET AL.

Examiner

Melvin H Pollack

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 January 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 is/are withdrawn from consideration.
- 5) ☒ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☒ Other: *see attached office action*.

***Priority***

1. This application is a continuation of Application No. 08/569,580, which was filed on December 8, 1995, and which is now a Patent No. 6,058,429.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 38 recites the limitation "first and second remarks" in claim 37. There is insufficient antecedent basis for this limitation in the claim.

***Double Patenting***

5. Claim 37 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 27. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

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6. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. Claim 39 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of prior U.S. Patent No. 6,058,429. This is a double patenting rejection.

8. Claims 40 and 41 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 2 of prior U.S. Patent No. 6,058,429. This is a double patenting rejection.

9. Claim 33 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 3 of prior U.S. Patent No. 6,058,429. This is a double patenting rejection.

10. Claims 42 and 43 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 4 of prior U.S. Patent No. 6,058,429. This is a double patenting rejection.

11. Claims 34-36 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 5 of prior U.S. Patent No. 6,058,429. This is a double patenting rejection.

12. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. Claims 17-32, 34, 35, 37, 38, 40, and 42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,058,429. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are a significant part of each claim.

14. For claim 17, Bryant teaches a new switch (col. 12, line 40) comprising:

- a. A plurality of ports (col. 12, lines 44 and 50); and
- b. A mechanism to determine which one of the plurality of ports is coupled to a destination device and to transfer information to the destination device without use of a routing protocol (col. 12, lines 56-61).

15. As to claim 18, the plurality of ports includes:

- a. A first plurality of ports coupled to a plurality of devices, including the destination device, associated with at least two networks (col. 12, lines 44-49); and
- b. A second plurality of ports coupled to a router (col. 12, lines 50-55).

16. As to claim 19, the networks are virtual local area networks (col. 12, line 41).

17. As to claim 20, the mechanism analyzes data transmitted between the router and the destination device (col. 12, lines 56 and 57).

18. As to claim 21, the data is packetized in accordance with an Address Resolution Protocol (col. 13, lines 28-33).

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19. As to claim 22, the mechanism generates a table, including layer two (L2) addresses and corresponding layer three (L3) addresses associated with the destination device prior to transferring information to the destination device (col. 13, lines 40-45).

20. As to claim 23, the destination device includes a server associated with one of the at least two networks (col. 14, lines 7-9).

21. As to claim 24, a switch comprising:

a. A plurality of ports adapted for coupling together a plurality of networks and a router (col. 12, lines 44-54); and

b. A mechanism to

i. Analyze information transferred from a source device of a first network to a destination device of a second network (col. 13, lines 55-56),

ii. Store information identifying a port coupled to the second network, a layer two (L2) address of the destination device and a layer three (L3) address of the destination device, (col. 13, lines 60-65) and

iii. Using the information to forward data between the plurality of networks (col. 13, line 66).

22. As to claim 25, the information is obtained from packets configured in accordance with an Address Resolution Protocol (col. 13, lines 59-60).

23. As to claim 26, the mechanism uses the information by:

a. Determining both the L2 address of the destination device and the port coupled to the second network based on the L3 address of the destination device supplied by the source device (col. 13, lines 60-65), and

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- b. Setting a destination of packets of the data to the L2 address of the destination device (col. 14, lines 23-26).

24. As to claim 27, for use in transferring data from a first network to a second network via a switch interposed between a router and the first and second networks without assistance by the router (col. 14, lines 51-57), the method comprising:

- a. Receiving a data packet by the switch, the data packet originating from a source device associated with the first network and including a layer three (L3) address of a destination device of the second network (col. 14, lines 57-65);
- b. Determining the L2 address associated with the L3 address of the destination device and a port of the switch to which the destination device associated with the L3 address is attached (col. 14, lines 66-67); and
- c. Setting a destination address of the data packet to the L2 address (col. 15, lines 3-5).

25. As to claim 28, a network comprising:

- a. A destination device of a first network (col. 12, lines 44 and 50);
- b. A source device of a second network (col. 12, lines 44 and 50);
- c. A router (col. 12, lines 50-55); and
- d. A switch having a plurality of ports supporting communication to the destination device, the source device and the router, the switch including software to determine which one of the plurality of ports is coupled to the destination device and to transfer information from the source device to the destination device without use of a routing protocol (col. 12, lines 56-61).

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26. As to claim 29, the first network is separate and distinct from the second network (col. 12, line 41).

27. As to claim 30, a learning internetwork switch for use in a network including a plurality of local area networks (col. 12, lines 40-42), the learning internetwork switch comprising:

- a. First port means for connecting to a set of local area networks (col. 12, line 44);
- b. Second port means for connecting to a router to allow a device of a selected local area network of the plurality of local area networks to communicate with the router through a transmission of packets (col. 12, lines 50-55);
- c. Means for inspecting control packets sent between the router and the device (col. 12, line 56);
- d. Means for storing association data that indicates a correspondence between data link layer addresses, network layer addresses, and the first port means based on information contained in the control packets (col. 12, lines 56-59); and
- e. Means for forwarding traffic between locally attached local area networks using the association data (col. 12, lines 63-64).

28. As to claim 31, there is a third port means for connecting the router to the second port means (col. 12, line 66).

29. As to claim 32, the means for storing is further configured to store data indicating a correspondence between data link layer addresses of the third port means and network layer addresses of the third port means based on information contained in the control packets (col. 13, lines 1-5).



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30. As to claim 34, a control packet includes a packet that requests a data link layer address of a port of the router (col. 13, lines 25-27).

31. As to claim 35, a request packet contains a data link layer source address associated with the device sending the packet, a network layer source address associated with the device sending the packet, and a network layer destination address associated with the port of the router (col. 13, lines 28-33).

32. As to claim 38, the first and second remarks are virtual local area networks (col. 12, line 41).

33. As to claim 40, a third set of ports on the router connected to the second set of ports (col. 12, line 66).

34. As to claim 42, the control packets include packets which are request packets that request a data link layer address of a port of the router (col. 13, lines 25-27).

***Claim Rejections - 35 USC § 102***

35. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

36. Claims 17, 18, 20-29, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Bryant et al. (5,241,682).

37. For claim 17, Bryant teaches a new switch (see abstract) comprising:

a. A plurality of ports (see col. 3, lines 20-25); and

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- b. A mechanism to determine which one of the plurality of ports is coupled to a destination device (see col. 3, lines 31-32) and to transfer information to the destination device (see col. 3, lines 36-39) without use of a routing protocol (see col. 3, lines 10-15).

38. Multiple other pieces of prior art included in the IDS also anticipate this broad claim, which was common at the time the invention was made.

39. As to claim 18, Bryant teaches that the plurality of ports includes:

- a. A first plurality of ports coupled to a plurality of devices, including the destination device, associated with at least two networks (col. 3, line 21); and
- b. A second plurality of ports coupled to a router (col. 3, line 20).

40. As to claim 20, Bryant teaches that the mechanism analyzes data transmitted between the router and the destination device (col. 3, lines 39-41). It is anticipated that a data analysis would be required to complete the routing function and to maintain the routing information.

41. As to claim 21, Bryant teaches that the data is packetized in accordance with an Address Resolution Protocol (col. 3, line 33). The method of breaking up data into pieces and to giving them destination locations that represent physical hardware locations is anticipated by the invention.

42. As to claim 22, Bryant teaches that the mechanism generates a table, including layer two (L2) addresses and corresponding layer three (L3) addresses associated with the destination

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device prior to transferring information to the destination device (col. 3, lines 60-66). Because Bryant's table stores the identifier and the corresponding hardware location, the corresponding layer standards are anticipated.

43. As to claim 23, the destination device includes a server associated with one of the at least two networks (col. 1, lines 55-57).

44. As to claim 24, Bryant teaches a switch comprising:

- a. A plurality of ports adapted for coupling together a plurality of networks and a router (see rejections to claims 17 and 18 above); and
- b. A mechanism to
  - i. Analyze information transferred from a source device of a first network to a destination device of a second network (see rejection to claim 20 above),
  - ii. Store information identifying a port coupled to the second network, a layer two (L2) address of the destination device and a layer three (L3) address of the destination device (see col. 6, line 65), and
  - iii. Using the information to forward data between the plurality of networks (col. 3, lines 26-41).

45. As to claim 25, Bryant teaches that the information is obtained from packets configured in accordance with an Address Resolution Protocol (col. 5, lines 13-19).

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46. As to claim 26, the switch of claim 24, wherein the mechanism uses the information by:

- a. Determining both the L2 address of the destination device and the port coupled to the second network based on the L3 address of the destination device supplied by the source device (col. 5, lines 13-19), and
- b. Setting a destination of packets of the data to the L2 address of the destination device (col. 5, lines 10-60).

47. As to claim 27, Bryant discloses the method (see Abstract) for the operation of the switch defined by claims 24-26. Because the method and the system are logically equivalent, the claim is rejected for the reasons above.

48. Claim 28 is a network interpretation of claims 17 and 18. Because the method and the system are logically equivalent, the claim is rejected for the reasons above.

49. As to claim 29, Bryant teaches that the first network is separate and distinct from the second network (col. 2, lines 66-67).

50. As to claim 37, the invention shares the limitations of claim 27 and is rejected for the same reasons.

***Claim Rejections - 35 USC § 103***

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51. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

52. Claims 17-32, 37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant as applied to claims 17, 18, 20-29 and 37 above, and further in view of Yu (5,636,371).

53. For claims 17, 18, 20-29 and 37, that which is anticipated is obvious.

54. For claim 19, Bryant does not fully disclose that the networks are virtual local area networks. However, Bryant does disclose that his invention is developed for the purpose of combining a series of networks (Bryant, Col. 2, lines 65-67). Yu discloses a set of virtual local area networks (Yu, col. 3, lines 39-55) that can easily be connected by Bryant's invention. At the time the invention was made, one of ordinary skill in the art would have used virtual LANs in the Bryant invention to improve system resource allocation.

55. Claim 30 describes much of the switch in claim 24 above, and was disclosed by Bryant as shown above. Bryant does not fully disclose that the combined networks may be LANs. Yu discloses a LAN as described in claim 19 above. At the time that the invention was made, one of ordinary skill in the art would have combined the two inventions for the reasons listed above.

56. As to claim 31, Bryant teaches that a third port means for connecting the router to the second port means (col. 3, lines 10-15). Implicit in the teaching that a node can be connected to other nodes on numerous other connected networks is the implication that more than one set of additional network ports are attached to the same subnetwork. At the time that the invention was

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made, one of ordinary skill in the art would have combined the two inventions for the reasons listed above.

57. Claim 32 discloses many of the same limitations as claim 24, and those limitations are rejected for the reasons above. The claim adds the limitation of a third port. However, Bryant teaches the limitation of the third port as listed above. Therefore, claim 32 is rejected for the reasons listed above. At the time that the invention was made, one of ordinary skill in the art would have combined the two inventions for the reasons listed above.

58. As to claim 38, Yu teaches that the first and second remarks are virtual local area networks, as disclosed above. Claim 38 is rejected for the reasons listed above. At the time that the invention was made, one of ordinary skill in the art would have combined the two inventions for the reasons listed above.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H Pollack whose telephone number is (703) 305-4641. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on (703) 308-4815. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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MHP

May 17, 2002

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

**MARK H. RINEHART**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**